Health, Hospital and Medical Care Needs of Virginia

Report of the Commission
to
The Governor
and
The General Assembly
of Virginia

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COMMONWEALTH OF VIRGINIA
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Health, Hospital and Medical Care Needs of Virginia

MEMBERS OF THE COMMISSION

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H. B. Mulholland
William B. Porter
Jack W. Witten
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Report of Commission Appointed Under Senate Joint Resolution No. 2 to Study Health, Hospital and Medical Care Needs of Virginia

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RICHMOND, VIRGINIA, November 4, 1945.

To:
His Excellency Governor Colgate W. Darden, Jr.
and
The General Assembly of Virginia

In March, 1945, the General Assembly of Virginia adopted Senate Joint Resolution No. 2, creating a Commission of nine members to study health, hospital and medical care needs of Virginia, etc. The duties of the Commission as set forth in the Resolution are:

1. The Commission shall make a thorough and complete study of the Department of Health of the State of Virginia, and its work and various activities; its needs, if any, for enlargement and expansion in order to properly meet the needs of our citizens at present and in the future.

2. The Commission shall consider the question of what is the best manner to provide public health services, including medical and hospital care to those of our citizens who are financially unable to provide it for themselves.

3. The Commission shall, in conjunction with the Virginia Advisory Legislative Council, (acting under Senate Joint Resolution Number Sixteen, adopted February twenty-third, nineteen hundred forty-four) consider the question of the medical facilities available to the rural population of Virginia, and what may be done to improve existing conditions in this field, including the desirability of establishing "Health Centers" in various rural sections of the State.

4. The Commission shall make a comprehensive study of the State's major health problems and make its recommendations thereon.

5. The Commission shall make a study of the advisability of a plan to examine and correct the physical defects of all school children, at private expense where possible and at public expense where necessary.

6. The Commission shall make a study of the need of a hospital insurance plan for industrial workers, and other citizens.

7. The Commission shall study the advisability of establishing a loan fund for those who wish to become physicians in Virginia, with extra inducements provided for those who will agree to practice medicine at least four years in rural areas.

8. The Commission shall also study methods of enabling Negro youths to become physicians to serve their race, including cooperation with other nearby states in establishing a Regional Medical School for Negroes.

9. The Commission shall at least thirty days before the next regular session of the General Assembly make a report to the Governor of the result of its studies.

The personnel of the Commission consists of:
Dr. I. C. Riggin, State Health Commissioner, Chairman
Dr. H. B. Mulholland, President, Medical Society of Virginia, and Assistant Dean, University of Virginia Medical School
Dr. Wm. B. Porter, Medical College of Virginia
Col. Parke P. Deans, Industrial Commission of Virginia
Dr. J. D. Hagood, Member of State Senate
Dr. Jack W. Witten, Member of House of Delegates
J. Maynard Magruder, Member of House of Delegates
Jos. J. Williams, Jr., Member of House of Delegates
Ted Dalton, Member of State Senate

Your Commission, in making the studies required under the Resolution, has had several meetings, including public meetings, and has sought to give the problems involved careful and painstaking consideration, endeavoring at all times to avoid a duplication of work being done by other Commissions making health studies.

Recommendations

The Commission recommends:

1. (a) That adequate office and laboratory space be provided for the Department of Health as recommended in the report of the special commission appointed under Senate Joint Resolution No. 30, Regular Session, 1944.

   (b) That the local health departments in the State be increased from twenty-seven to fifty-one districts to provide an over-all health coverage for the State, and that funds be appropriated for this expansion.

2. Study of the problem of indigent care having been made by a commission appointed under Senate Joint Resolution No. 8, Extra Session, 1945, no particular recommendations are given on this subject herein.

3. The topic of rural health having been more fully considered by a committee of the Virginia Advisory Legislative Council, your Commission urges the adoption of those measures which will provide better medical care for the rural areas.

4. That the necessary facilities and personnel be provided for the State Department of Health to carry out its many and increasingly important functions and for the expansion of its work as recommended in this report.

5. That a compulsory periodic medical examination be required of all school children in Virginia, and that the defects discovered be corrected on a voluntary basis in the best practicable manner; and that an appropriation of $500,000 be made available for this program.

6. That the sum of $10,000 annually for the next biennium be appropriated to the Department of Health for the purpose of instituting an educational program for the extension of pre-payment hospital and medical care to cover industrial and agricultural workers and their families.

7. That the sum of $25,000 each be made available annually to the two medical schools as a loan fund to help supply doctors to rural areas.

8. That increased allowances for Negro medical and dental students be supplied in the discretion of the Governor.

9. That a single continuing commission be created for the study and coordination of all health subjects.

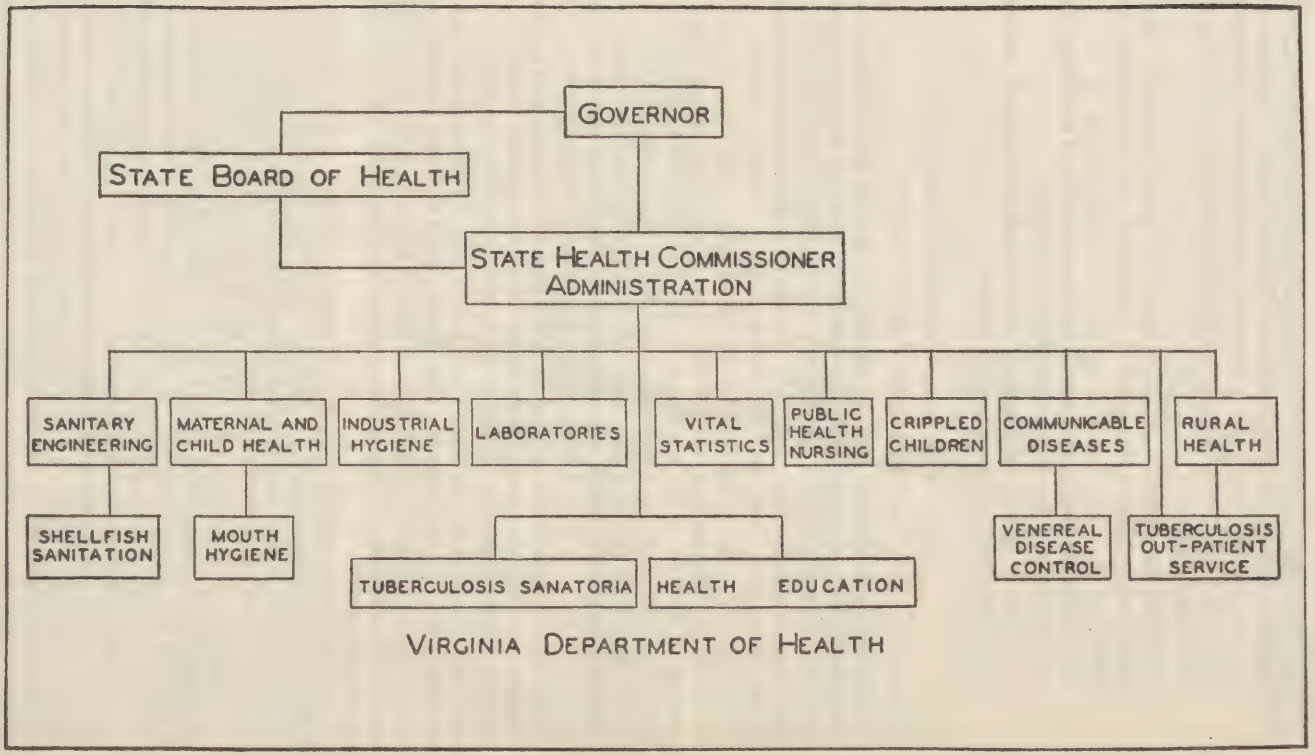
The Department of Health—its History, Organization and Functions

From a modest beginning under an act of the General Assembly passed in 1872, creating a State Board of Health, Virginia has made a great deal of progress in caring for the health of her people. The first work consisted of effort directed toward the control of epidemics, principally smallpox, and the distribution of a limited amount of health literature. The effectiveness of even this slight work was recognized, and in 1908 the Department of Health was established. From the start the growth of the State Department of Health has been gradual, but continuous, and the State Department of Health, as it now exists as an official department of State government, was created in 1927 under the Byrd reorganization act. With the assistance of the Department of Health, in 1916 the first county health department was organized and began its service in Norfolk County, and by 1933 sixteen counties had public health service. In 1935 Federal funds were made available through the State Health Department to subsidize counties that desired a health service, and with these funds available there has been a further expansion of health services until at the present time there are fifty-one counties comprising twenty-six districts that have a health service. Approximately 68 per cent of the rural and 7 per cent of the city population are served by these health districts.

From three offices and a laboratory in 1908, with expenditures of $10,000, the Department of Health now has expenditures of approximately $1,000,000 annually, and it has necessarily expanded to the point of needing much additional office space and better laboratory facilities.

The State Department of Health with other agencies of the State government is attempting to achieve certain objectives. The over-all objective of the Department is to protect, promote, and prolong the good health of the general public. Progress in the achievement of this objective has already been made. Organization is of utmost importance in the operation of an agency, and with changing conditions in public health, organization must be dynamic and not static in nature. The Health Department has endeavored to have the most effective organization possible under the circumstances in its efforts to promote, protect, and prolong the health of the people. It seems evident, however, that with the increased demands

ORGANIZATION CHART
of
THE STATE DEPARTMENT OF HEALTH



of the public for health services with the present organizational setup and the limited number of personnel, it is unable to provide adequately the services demanded and needed by the citizens.

The major activities* of the State Department of Health are:

Rural Health
Communicable Diseases
Pneumonia Control
Venereal Disease Control
Laboratories
Sanitary Engineering
    Water Supplies
    Sewerage and Sewage Disposal
    Stream Pollution
    Shellfish Inspection and Sanitation
    Malaria Control
    Swimming Pools and Bathing Beaches
Maternal and Child Health
Mouth Hygiene
Public Health Nursing
Crippled Children's Bureau
Industrial Hygiene
Tuberculosis Out-Patient Service
State Tuberculosis Sanatoria
State Subsidy to Local Tuberculosis Sanatoria
Public Health Education
Vital Statistics
Administration and operation of the personnel system and related activities
Administers in-service training
Cooperates with the U. S. Public Health Service in operation of the two rapid treatment centers for venereal diseases
Administers the Emergency Maternal and Infant Care program
Conducts orientation periods for student nurses in public health from the Medical College of Virginia and supervises their rural experience
Maintains and operates diagnostic clinics, supervises hospital and convalescent care, provides follow-up care and supervision by nurses and medical social workers in the home, conducts surveys and sampling to determine incidence of rheumatic fever in various population groups, and carries on epidemiological investigations to determine the channels of spread in the rheumatic fever control program.

*Note: See Bulletin State Department of Health 1942.

MAJOR HEALTH PROBLEMS

The Commission in undertaking the study of the State's major health problems finds many interesting facts which indicate that many of them still remain unsolved. Measures to alleviate, correct, and abate

some of these problems are already underway. In some instances even though the problems were known, no measures have been undertaken because of the lack of funds and personnel. The Commission has deemed it neither advisable nor possible to study and report on every health matter in Virginia, but submits the following as its findings on some of the outstanding health problems.

Tuberculosis

Virginia has a consistently higher death rate from tuberculosis for a nine-year period than that of the United States as a whole. The fact that the rate in Virginia shows a steady decline over this period is evidence that the program of tuberculosis control in Virginia is effective, yet by all standards the mortality and morbidity rates are yet entirely too high. With a more intensive tuberculosis control program, it may fairly be expected that the death rate from this disease will continue to show a decrease.

There is in all probability a total of 20,000 cases of clinical tuberculosis in the State, and it has been impossible in the past to adequately care for this number with the available facilities and personnel. This disease, which is recognized as being curable in its early stages, was responsible for 1,287 deaths in the State during 1944. Many, perhaps most of these lives, could have been saved by adequate provisions for necessary clinical and hospital services. In addition to these deaths, hundreds of others have been incapacitated by this disease and are a burden and a hazard to their families and communities.

To accomplish a reduction in the tuberculosis death rate involves:

(1) The maintenance of an active registry of deaths, active cases, suspected cases, contacts, and suspected contacts.

(2) The location of cases, suspects, and contacts.

(3) Provision for diagnostic service which includes physical examinations, X-ray examinations, tuberculin testing, and consultation service for patients referred by physicians to clinics operating on a regular schedule.

(4) Operation of a state-wide collapse therapy program for indigent pneumothorax patients.

(5) The furnishing of hospitalization for patients requiring major surgical operations.

(6) Provision of a follow-up nursing service for assistance to physicians in the supervision of open cases, for instruction of patients as to care and precautions to be instituted for the protection of contacts; the selection of cases for institutional care.

(7) An increase of field pneumothorax stations should be made from the existing 54 to 75, so that no patient will have to travel a greater distance than 20 miles for refills.

(8) There should be an increase in the number of beds at the State Sanatoria so that infirmary as well as ambulatory patients will be able to receive sanatorium care and treatment.

In this connection your Commission calls the attention of the Governor and the General Assembly to the fact that there is no place in Virginia to which diabetics afflicted with tuberculosis may go. Something should be done about this.

As a special commission was created by the General Assembly to study the tuberculosis problem, this Commission is not including in its report a more detailed statement.

Crippled Children

Crippled children have been and always will be of great concern to the citizenry in general, and are of more concern to the parent. The cost involved in the prolonged treatment of some of these conditions makes it almost prohibitive to the individuals in a large percentage of these cases.

With this knowledge the State has deemed it necessary and wise to make funds available, approximately $38,000, to assist this group in correcting these defects where possible. In the past only those children under 16 years of age have been participants in this program. The age limit has recently been raised to 21 years; and with accidents listed in fifth place in the ten leading causes of death in Virginia, we may well expect the active case load of 10,000 to show a marked increase. In the past no accident prevention and safety program has been undertaken as a function of the Health Department. More stress should be laid upon this important activity of caring for crippled children.

Orthopedic clinics were formerly scheduled in forty-one counties in the State, but due to so many orthopedists being in the armed forces some of them have had to be discontinued. These clinics should be resumed and additional clinics established, and so located that they will be available for patients in each county.

Hospitalization and convalescent care is a requirement in the treatment of crippled children if effective results are to be obtained. An expansion of the Rucker Convalescent Home at Charlottesville, with the establishment of a convalescent home in connection with the Crippled Children's Hospital at Richmond and also one in connection with the Medical College of Virginia should be made available at once. The latter should be for convalescent Negro children with orthopedic conditions. No program of treatment is available for cerebral and spastic paralysis cases in Virginia, and there should be established a special clinic with a ward to provide for this type of case. Personnel consisting of additional orthopedic nurses, physical therapists, and plastic surgeons must be provided to adequately meet this health problem.

There has been ample demonstration to show that with proper treatment and care many of those with crippling conditions can be so improved that they will be able to lead a normal and productive life.

Rheumatic Fever

Only within recent years has rheumatic fever been given serious consideration as a health problem, and only quite recently has it been

realized that rheumatic fever was a problem in the Southern states as well as those states with a uniformly colder climate. In 1940 the Virginia State Department of Health undertook a study to ascertain information as to the incidence of rheumatic fever in Virginia. This study was begun in Henrico County and has been extended to include several other counties. This study has shown definitely that rheumatic fever and chronic rheumatic heart disease is a major health problem. The importance of this disease in Virginia is indicated in Table No. I filed herewith, which shows that the death rate in Virginia is approximately the same as that for the United States as a whole and stands among the first eight as to causes of death.

In a special Report of Mortality Summary, U. S. Bureau of Census, it is estimated that the incidence of rheumatic fever is 1 per cent of the school population. This report also states that "nearly all heart diseases among persons 5 to 24 years of age are of rheumatic origin." The report further states that only 5 per cent of those having a rheumatic infection beginning in childhood reach an age beyond 45. With the death rate of Virgina paralleling that of the nation as a whole the incidence of the disease should also be comparable to that of the nation.

From studies made by other states in rheumatic fever control, it has been definitely shown that individuals suffering from this disease require hospitalization and convalescent care if the number of permanently crippled is to be decreased and the mortality rate lowered.

The establishment of rheumatic fever clinics located throughout the State so that service of these clinics will be available to all the people, arrangements for the hospitalization of all cases needing such care, and the development of a state-wide program by the State Department of Health along the lines established elsewhere which have proven effective, are recommendations for more effective control measures.

Maternal and Child Health

Maternal and infant mortality, plus premature births, as shown by Table No. I, is another major health problem in Virginia. Thirty-nine states have a lower maternal death rate than Virginia, and thirty-seven states have a lower infant mortality rate. The solution to this problem is one of practical demonstration and education. Proper education of the general population as to the need of prenatal and postnatal care as well as educating those administering such care would definitely reduce these extremely high death rates. A widespread use of midwives (Virginia stands 39th in live births not attended by physicians) no doubt contributed to these causes of deaths in Virginia; therefore a recognized program of control over midwives is advisable.

The program should be one of educating the general population and professional personnel, and not necessarily one of medical care per se. The establishment of clinics is purely a means of teaching the people the value of certain procedures and practices. Health supervision of preschool children should be more detailed. Routine physical examinations, inspections, and immunizations should be procedures covering all children up to school age. Pediatric medical care will require that clinics be established

throughout the State in addition to the well-baby clinics that are now being conducted. A follow-up of neonatal and infant deaths should be instituted in an effort to lower the infant morbidity and mortality rates. The survey of maternal deaths should be continued as it was before the war. Previously there were 170 M. C. H. clinics being conducted in the State; this number should be approximately doubled.

The Training Center for the care of premature infants established previous to the war, but discontinued, should be re-established and other centers opened. Maternity hospitals licensed under the Maternity Hospital Law should be followed more closely by an advisory service of obstetricians and pediatricians. More intensive follow-up of prenatal patients suffering with tuberculosis should be carried on and hospital facilities for delivery of such patients made available.

The nutrition program has proven to be of value and will be more in demand in the future. Specialized services in nutrition should be expanded to all local health districts and to interested organizations and individuals. Nutritional advisory service should be given to schools, clinics, dietary departments of small hospitals, and to industries.

Cancer

The suffering of those with cancer as well as the number of deaths due to this disease is a problem that is of grave concern. Cancer as the cause of death climbed from sixth place in 1940 to third in 1944 in the ten leading causes of death in Virginia. Table No. I shows Virginia as having a lower death rate from cancer than the United States as a whole. The probable reason for this is that in Virginia the population consists of a large percentage of colored people, and this group does not suffer from cancer of certain types as the white population does, and, too, diagnostic facilities are not as available to the colored as they are to the white. The fact that cancer as a cause of death has shown a steady increase over the years is indicative of the fact that intensive efforts must be undertaken to alleviate the suffering and reduce the deaths from this disease.

Recognizing the established fact that early diagnosis and proper treatment of cancer cases is the only method of reducing the cancer death rate, it is recommended that a program be organized to make available effective services not only to the urban people, but to the rural as well.

To make effective such services will necessitate the establishment of a Division of Cancer Control, the program to include the operation of a mobile clinic for the early diagnosis of malignancies and the performance of specialized diagnostic laboratory procedures necessary in the recognition of malignancies and study of pathological tissues. A mobile unit properly staffed could visit any section of Virginia for diagnostic, consultative, and instructive purposes. Private patients of physicians, and indigent suspects in this way would be reached without delay, fulfilling the need for early diagnosis.

The follow-up by nurses of the respective local health departments on suspected cases and on patients having a diagnosis of a malignancy

is necessary if effective results are to be obtained in a cancer control program.

Trachoma and Goiter

In certain sections of the State there is a marked prevalence of two diseases, trachoma and goiter. No organized program for the prevention, control, or eradication of these afflictions has been undertaken. A special program should be inaugurated to study and institute measures to prevent the further spread of these ailments, to alleviate the suffering caused by them, and to prevent the development of blindness from those suffering from trachoma.

Venereal Disease

Syphilis presents a major problem. This disease is listed as one of the ten leading causes of death in Virginia. Not only does the disease cause many deaths, but a large percentage of the patients at the State mental institutions are there because of conditions brought on by syphilis. The Selective Service Act and Virginia Premarital Law have uncovered many cases of this disease which would never have been known to exist had not these groups of people been examined. Means should be devised to treat early syphilis so that the number of mental cases would be reduced and the death rate lowered to the very minimum. The incidence of gonorrhea in Virginia is seven times that of syphilis from the standpoint of numbers. Many individuals, male and female, are crippled by conditions resulting from this infection, and a number of deaths are caused by involvement of the heart by this organism.

The program of Venereal Disease Control has only partially met the need of the State because of many factors, and is inadequate in locating contacts and in the following-up of known patients with the disease under treatment at the clinics and by the private physicians. This can be remedied only by having sufficiently trained investigators and nurses located throughout the State. The continuation and maintenance of the present clinics and the establishment of additional clinics and treatment centers which will be available to those needing treatment in all sections of the State, is essential.

NEEDS OF HEALTH DEPARTMENT FOR ENLARGEMENT AND EXPANSION

Office and Laboratory Space

A primary need of the State Department of Health is an adequate and suitable building at Richmond for the housing of this increasingly important department of the State government. The commission appointed to make a special study of the need for office and laboratory space for the department has already so reported, and we concur in the findings of said commission.

Communicable Diseases

Control over communicable diseases was the basis for the founding of public health services. Today the people are confronted with practically all of the old communicable diseases and many new ones. With some of the new diseases, means of control have been devised, but approximately 50 per cent of all clinical epidemiological problems are due to unknown entities and remain unsolved. With returning personnel of the armed forces and an increase generally in international traffic, we may expect an experience with diseases not encountered in this country before. These facts alone point to the need of clinical and laboratory research in an effort to further control communicable diseases.

At the present there is only one hospital in Virginia (Norfolk) that has proper facilities for the treatment of acute communicable diseases. Hospital facilities for this purpose should be established in at least four sections of the State. A problem encountered in the study of an outbreak of a communicable disease is the lack of adequate laboratory facilities at the site of the outbreak; these facilities are necessary in the proper conduct of an epidemiological investigation.

There is need for the establishment of facilities in areas of the State for the treatment of acute communicable diseases. One of these centers comprising a unit each should be located at the University Hospital and another at the Medical College of Virginia; the remaining two units to be located near or in Roanoke and Norfolk.

Table No. II giving the median figure of the occurrence of the usual communicable disease shows in the total by months the need for hospital beds. It will be seen that the least number of cases for the diseases listed occur during the months of June and July, and that at this time 120 potential patients for hospitalization exist.

Prior to the period of war emergency a mobile unit, trailer in nature, was planned for the investigation, on location, of sanitary and communicable disease problems. The development of this plan was prevented, because of the war and the acquisition of the then State-employed personnel by the armed services. This plan for such a mobile unit should now be carried out.

Sanitary Engineering

Within the next few years it may be expected that a considerable number of towns and cities will extend existing sewage disposal systems and water works, construct new sewage treatment plants, garbage and rubbish disposal plants, provide drainage, and take other sanitary measures. Also stream pollution, and other industrial wastes will require attention. Too, under this heading, the supervision of the shellfish industry and the protection of our population from contaminated sea food will require considerable thought. Provisions for service in these fields must be met.

Laboratories

The State Health laboratories in Virginia are not in a position to carry on research that is necessary to keep in step with modern public health practices, nor are they in a position to meet the demands made by physicians and others in the State for certain types of examinations that must be made routinely. A laboratory operated by a State department, for all practical purposes, should have no limit placed on the amount and type of service it can render the citizenry.

The laboratory of the State Health Department has not undertaken a number of services demanded because of lack of space and shortage of personnel. There is no remedy for this situation until facilities and space are made available, which we hope will be made one of the first of Virginia's postwar projects.

A suitable animal house should be constructed and maintained at the Virginia State Prison for Men in Goochland County. The building should be so constructed that animals could be properly housed and bred. The animals produced such as white mice, rats, guinea pigs, and rabbits could be furnished to all State Laboratories at cost and could act as a reservoir for experimental purposes for the State Health Department. It is believed that there would be little expense above the primary outlay of funds, and that the animal house eventually would pay for itself.

Industrial Hygiene

Industry in Virginia is constantly increasing, both large and small. The State Health Department will not be able to meet the demands made upon it for service unless this bureau is enlarged. While serving industry and protecting the health of the employees this bureau should at all times have personnel and facilities for a certain amount of research. We must recognize that Virginia is fast becoming an industrial state.

Mouth Hygiene

The future life of a child may be jeopardized by the faulty mouth hygiene of its youth. A program of mouth hygiene should be made available to every child in Virginia if for no other reason that that of education. Virginia has never offered this service on a large enough scale. The maximum number of dentists at any one time being employed in the dental hygiene program has been twenty-one. At present only seven are employed. Almost two-thirds of our young adults have dental defects which can and should be corrected.

Health Education

Education is just as important in public health as in other fields. The State Department of Health established a Division of Health Education in 1936. However, the program of health education is neither specific enough, nor broad enough in its coverage to meet the requirements in this field, and Virginia is lagging behind in its educational services as

applied to public health. The program of education in public health must be broadened and this department sufficiently staffed with qualified personnel, which will cost an additional sum of approximately $18,000 per year.

Health Statistical Data

At present either by law or by direction or by demands of operation, practically every subdivision of the Health Department is involved in a system of reports and statistics. Some 260 reports, forms, and records, exclusive of fiscal purchasing, personnel, and property forms, are in use. Some 90 employees are engaged in processing and filling out records of various kinds. Under the system of manual recording, it is impossible to have the thousands of items of basic data of the department fully analyzed for useful activity and program planning. The installation of a single integrated mechanical system, with the improvement of the necessary manual features will go far toward making available the factual data required by the Health Department to properly coordinate its functions. Not only can proper statistics and records be obtained through the installation of such a recording and tabulating unit, but such data can be advantageously used for health research.

Local Health Departments

The Commission is definitely cognizant of the fact that even with the expansion of the fuctions and activities of the central office of the State Department of Health, adequate public health protection can only be provided to the citizens if these services are made available to the local areas in the form of county or city health departments. The most satisfactory and effective unit of organization to perform a state-wide service is the county or city health department which of necessity must utilize its influence and perform its functions as an essential subdivision of local government. Furthermore, to make effective programs of service such as the control of Tuberculosis, Venereal Disease, Communicable Diseases, Cancer, and render Maternity and Child Health and Crippled Children's services, it is fundamental that the basis of any such service is the local health department.

As previously noted the first full-time county health department was organized in Norfolk County in 1916. Between that time and 1934 fifteen additional counties in Virginia authorized and conducted county health departments. During 1935 as a result of the passage by Congress of the Social Security Act there became available to the several states funds for distribution through the State Health Department to localities for the purpose of aiding in financing local health departments. As a result of the availability of these funds the number of counties establishing health departments has steadily increased until at present there are fifty-one counties having full-time health service. Although local health services have not been organized on a state-wide basis to date, the effectiveness of the programs conducted by existing local health departments and the State Department of Health is indicated by Table III.

It is believed by the Commission that if during the period shown in Table III organized health work on a local basis had been available to all areas and the citizens of the State, greater reduction in the number of cases of these diseases would have taken place. The county health departments now in existence are serving a population of 1,284,767. Organized services should be made available to the remaining rural population totaling an additional 757,000. Thus the primary need is to establish organized health departments to serve every county in the State and to expand those local health departments already in existence sufficiently to furnish a reasonably adequate health service to their respective communities; this service to include not only the services being now rendered, such as immunization clinics, venereal disease clinics, tuberculosis clinics, maternal and child health clinics, preschool clinics, and home nursing and sanitation visits, but the service should also include a broad educational program covering both adult and school groups, guidance and correlation of all health activity in the locality, and the planning and execution of additional progressive programs consistent with good public health practices. These are now available only in part because of lack of funds to provide adequate facilities and personnel.

The present health services being conducted in the fifty-one counties follow a prescribed pattern. While such a program heretofore has been considered adequate, advances in public health knowledge warrant the addition of such services as those in the field of nutrition, rheumatic fever, cancer control, et cetera, as well as further expansion of the existing programs. The limitation of services rendered a community is in direct ratio to the number of qualified personnel available. Prior to the outbreak of the war in those sections of the State with organized health departments, efforts were made to plan for these departments a well-rounded and balanced program. The drain from these services of professional and technical personnel has resulted in the reduction of the number of qualified individuals serving with these local departments, which has reflected unfavorably on the sum total of accomplishments. For example, many local health departments which formerly had two or more public health nurses now only have one, and some are without any medical personnel. Sanitary engineers too were lost in large numbers. In addition, the public is demanding increased services. The national standard for public health personnel is one medical officer for approximately each 50,000 population in rural areas, one nurse for each 5,000 population, and one sanitation officer for each 10,000 population. In Virginia many of the departments with large areas have had only one nurse for 25,000 population, one health officer for 100,000 or more, and one sanitation officer for 60,000. It is obvious that adequate services cannot be rendered with this small number of personnel per unit population.

To provide a state-wide coverage with local health service, twenty-four additional local health districts must be established making a total of fifty-one health districts for the State; these districts including from one to four counties, with an average population of 50,000 per district. The proposed geographical location of such districts is illustrated on Map

No. 1. It is contemplated that these arrangements for health districts be very flexible in order that final geographic adjustments could be made so as to meet the needs and desires of the governing bodies of the localities. Any such readjustment of the geographical locations recommended would not seriously alter the plan for state-wide coverage or the necessary financial outlay. The professional personnel required for the operation of such coverage would be fifty-one health officers, one public health nurse for each 7,500 population, one sanitation officer for each 20,000 population, and one dentist for each 50,000 population. For effective administration of this over-all plan consideration must be given to the establishment of four administrative districts, each district consisting of component health districts or county health departments, as illustrated in Table IV.

The budget for the year 1944-45 for the operation and supervision of the existing twenty-seven health departments totals approximately $970,245. The estimate of the cost for the extension of health services to include fifty-one health departments with adequately trained personnel is approximately $2,261,000. The kind and number of personnel now employed in the existing twenty-seven districts and the number of personnel required for the proposed fifty-one districts is as follows:

	Present Personnel	*Proposed Personnel*	*Increase*
Health Officers	27	52*	25
Public Health Nurses	111	259	148
Sanitation Officers	62	100	38
Clerks	66	105	39
Dentists	0	51	51
Advisory Personnel and Clerks	21	56**	35
	287	623	336

*Includes one assistant

**Includes the additional physicians for school health program.

Through the establishment of the fifty-one districts, an adequate health service could and would be created in each of the one hundred counties of the State. Only when a coverage includes the entire population of the State will all the people have the advantages of the known benefits for health protection. As it now exists forty-nine counties are paying taxes for the purpose, but are deriving little benefit from local public health services.

The Commission is of the opinion that the funds necessary to carry out the above expansion should be forthwith provided. It will be one of the best investments that Virginia can make for the health, happiness and well-being of its citizens.

Hospital Insurance for Industrial Workers and Others

The Commission is firmly of the opinion that the citizens of Virginia should have the widest possible hospital insurance coverage. Workmen's Compensation insurance has been helpful to the worker, and it has been suggested that its coverage should be broadened to include all agricultural workers and all industrial employers employing three or more persons. And, many think that a comprehensive system of health insurance, offering both medical and hospital care as well as cash benefits for loss of time, is on its way. But for the time being the thought of the Commission is to make hospital care insurance as universal in Virginia as may be done without compulsion. Hospital care insurance fills the large gap not taken care of by Workmen's Compensation in providing hospital care for sickness befalling the employee, and further by providing hospital care for the family of the employee. To provide for hospital costs by a pre-payment plan is of real importance. The theory upon which hospital insurance is based is just as sound and prudent as the carrying of fire and life insurance. A general recognition of the value of hospital insurance is shown by the fact that already approximately one out of every six Americans are now paying hospital bills in advance through some form of hospital insurance.

Virginia is below the national average in hospital care coverage. A representative of a non-profit pre-payment plan has given us an estimate that only approximately 250,000 people in Virginia have hospital insurance. To increase the amount of hospital coverage for the citizens of Virginia is an aim to which our attention should be directed. It is certainly a fertile field for work; it is a field in which the industrial workers should all be enlisted. Statistics generally show that those least able to pay for hospitalization usually need it most. High cost medical care goes hand in hand with low income. About one person in ten needs hospitalization each year, and the financial burden of such care is too great for many industrial and agricultural workers to bear.

There are 14,000 employers in Virginia carrying Workmen's Comsation insurance. Questionnaires were sent 1,807 of these firms inquiring about the insurance provided for their employees, and 760 answers were returned. From this survey we found that about one-half of the employers provide some type of group insurance, such as life, accident and health, a retirement plan, and quite a number have hospitalization and medical care insurance. Such insurance has increased in each ten-year period since 1910, and since 1920 hospitalization and medical care programs have had a steady and a healthy growth. Moreover, it is noted that the group insurance coverage increases in proportion to the number of employees per firm. A further observation from the survey is that the majority of employees who were participants in group insurance plans felt that they were better off than the employees who belonged to no such plan, and approximately 93 per cent of the firms expressing views on the subject stated that employee morale was definitely improved through the operation of their group insurance program. A chief weak-

ness indicated in the group policies is that the insurance protection in many instances ceases when employment ends. However, the survey definitely convinces us that both the employer and the employee are favorable to hospital insurance coverage. It being a voluntary proposition, necessarily, it is slow to obtain anything near adequate coverage.

It is more difficult to enroll the farmer than the industrial worker. Only a negligible percentage of the farm families of Virginia carry hospital insurance. It is an industry little organized and widely scattered with probably 200,000 farms involved. In a couple of Virginia counties where the Blue Cross made some considerable effort less than 10 per cent of the farmers enrolled. Obviously, it is going to require an intensive educational program to enroll the farmer. Once they are enrolled, and fully understand the value of hospital insurance, they are its most ardent advocates. The pre-payment of hospital care is a great need for those of modest incomes.

A general program can and should be worked out whereby all the families of this Commonwealth may be informed of the value and benefits of prepaid hospital care.

Such a program must have an educational basis. The furtherance of the work will, more or less, involve a selling of the idea to the people, but reduced to its last analysis, it is the salesmanship of a social program that will provide for hospital care without the cost being a burden or hardship.

Experience indicates that non-profit hospital care plans are offered at a relatively low cost which is adequate to meet the needs of the average citizen of Virginia.

Thousands of farmers and industrial workers are yet unfamiliar with these plans, and they would find comfort and economy under their protection. Such non-profit plans have the approval of National and State Hospital and Medical Associations, including the approval of the Medical Society of Virginia, and one such plan, namely the Blue Cross now has 17,500,000 members enrolled in the United States. Other contracts for prepaid medical care cover between 4,000,000 and 5,000,000 people in our nation. The Virginia percentage of population covered in all of these plans averages much below the national average.

In 1945 the North Carolina Health and Medical Care Commission of fifty outstanding physicians and citizens, headed by Dr. Clarence Poe, reported:

> "IN ORDER both to remedy the most urgent needs of today and work toward the larger program of tomorrow, three things are supremely needed—MORE DOCTORS, MORE HOSPITALS, MORE INSURANCE. These are the three mutually indispensable legs of our three-legged stool.
>
> "We cannot have enough doctors without more hospitals . . . nor enough hospitals without greater popular ability to pay for hospital service . . . and such ability to pay on the part of the poorer half of our population is impossible without insurance."

Your Commission sincerely feels and so reports that the State of Virginia should encourage hospital care insurance for farm and industrial workers. The public is entitled to our assistance in this phase of the fight against the costs of disease and illness. The trend of the people is toward better health and hospital care, and the practice of installment payments is already well established.

Recognizing the need in Virginia for the extension of hospital care coverage, the real question is the method by which this may be achieved. Suggestions vary almost with the individual or group interviewed, but your Commission feels that a cross-section of the best opinion available on the subject is that the correct approach to the problem is an educational one. This will require much detailed effort, for example, a broad publicity program, and considerable time and expense to carry the information to every corner of the State. Your Commission feels that the work required can best be done by the State Department of Health, and it will require a full-time person to supervise, coordinate and direct the activities incident to this work. And this program should be so organized in the Department of Health that knowledge of the subject will be brought in so far as practicable to every family in Virginia that might possibly be enrolled. The cost of such a program, while substantial, will not be unreasonable in view of the good to be accomplished. Probably $10,000 annually for the next couple of years would be sufficient for the purpose. Incidentally, your Commission is of the opinion that this would not be a recurring expense, for once it is thoroughly established among the people, the enrollees will be its best advertisers.

Admittedly, the extension of hospital care coverage by an educational process is far short of the need, but it is a step in the right direction. And it is our duty to make every reasonable move that leads toward solving our State health problems.

Rural Health

Two members of this Commission are members of the committee acting under S. J. R. No. 16, of the Virginia Advisory Legislative Council to study rural health and medical care. The report submitted to the Council by the committee has shown an appalling lack of medical care in rural Virginia, and reference is here made to the findings of that committee giving the picture of the situation that exists in this field. The Commission substantially agrees with the recommendations contained in said report, and urges the adoption of measures which will provide for adequate medical care throughout the rural areas of the State.

Loan Funds for Medical Students to Practice in Rural Areas

Unquestionably, there exists in Virginia a lack of physicians in many rural areas. One of the steps considered by the committee of V. A. L. C. in order to supply doctors to the rural areas, is to supplement the loan funds to medical students studying in the two State medical schools, pro-

vided such students will agree to practice at least four years after graduation in rural areas. This Commission believes that the amount suggested, namely $25,000 annually to each medical school to be used as such a loan fund would materially help to supply doctors to the rural areas of the State, and, therefore, we strongly recommend that the above fund be made available for this purpose.

Facilities for Negro Medical Students

Virginia is operating under an arrangement with Meharry Medical College, at Memphis, Tennessee, whereby allowance is made by the State of Virginia for scholarships for the training of the Negro medical students from Virginia in an accredited medical school. The release of many prospective Negro medical students from the armed services will likely soon call for increased allowances from the State for this purpose, and also a number of Negro youths will probably desire to enroll as dental students elsewhere. Your Commission has not been able to determine the approximate sum needed for this scholarship assistance, but they feel that whatever may be needed for the purpose should be cheerfully supplied. The Negro death rate in Virginia is much higher than the white death rate. We should do anything that we can to enable capable Negro youths to become physicians and dentists to serve their race, and a continuation of this study should be made by the Department of Health, and any needed amounts for aiding the Negroes in medical and dental education should be left to the discretion of the Governor of Virginia.

Medical Aid for Indigents

Since the problem of what is the best manner to provide health services for the indigent has been considered by a commission appointed under Senate Joint Resolution No. 8, and a detailed report filed, your Commission has not duplicated this work.

Medical Examination of School Children and Correction of Defects

Reference to this subject was made in the report of the Virginia Education Commission in 1944 as follows:

> "It is strongly recommended by the Commission that provision be made for each school child in the State to have periodically a complete physical examination with an efficient follow-up system to assure the correction of the health and physical defects revealed by the examination. Toward this end it urges the expansion of the public health services of the State, to include a complete public health unit in every health district, furnishing, particularly, adequate public health nurse service and supervision for the schools. All these matters of health will require close cooperation and understanding, and perhaps memorandums of agreement between the State Department of Health and the State Department of Education at both the State and local levels."

An intensive study of this problem has been made by the State Department of Health during the past eighteen months, and the results of this study were available to the members of this Commission. On the basis of the study conducted by the State Health Department, and from the further consideration of the subject by this Commission, we find and reach the following facts and conclusions:

1. That there are approximately 560,000 school children in the State of Virginia, of whom it is estimated that over one-half have some physical defect.

2. That sampling has shown that most of the defects which exist in school children can be corrected.

3. That no state-wide plan is now in operation for a proper periodic medical examination of these school children.

4. That the school health service should be divided into two phases, namely a program of health education and a program of medical service.

5. That compulsory periodic medical examination should be required of all school children in Virginia.

6. That the responsibility for school health medical service be made an integral part of the health services rendered by local health departments.

The limit to which a school health service may be expanded is bounded only by the interest and support which such a service can receive from the general public. While it might appear desirable to set up a school health service so comprehensive that even the most detailed medical needs of the school child were met, such a program would not only place undue emphasis on this phase of the community's public health activity, but would also prove to be more expensive than public opinion might justify. Failure of such a program would be then due, not to lack of results, but to its perfection which was more advanced than public opinion at the time. It appears therefore desirable to set up a school program reasonably consistent with present progress of the general public's education and reasonably consistent with available facilities, funds, and personnel.

Effective plans can and should be worked out by the Department of Health for remedying the defects discovered by the medical examination of the school children.

Coordinated with the general health program and handled as a health function under the Department of Health, the cost would likely be around $500,000 per year. This may seem expensive on first thought, but ultimately it will be considered as money wisely spent and will eventually pay tremendous dividends.

For sake of brevity the Commission will not enter into a discussion of the details which were considered by it for the execution of this plan. Suffice it to say that your Commission feels that the program for the medical examination of school children and the correction of the exist-

ing defects can best be carried out by the Department of Health working with the practicing physicians and dentists of the State. On this point reference is made to "Plans for a School Health Service in Virginia" and study of "Estimated Costs for Medical and Dental Examination of School Children in Virginia" prepared by the Department of Health.

In many instances, the provision of adequate facilities for the correction of defects will be found to be the most difficult hurdle encountered in a school health service. It is recognized that without providing some means to secure correction of the various defects found in school children, the physical examination is of little value so far as final results to the individual are concerned. The lay public is unable to measure the educational results obtained or visualize the possible later effects of an examination program unless tangible corrective figures are available.

Conclusion

It must be realized that the many phases of health studies involve changing circumstances and conditions. Old problems will continue to be present; new problems will arise. A single continuing Health Commission to study, coordinate, and integrate all health problems of Virginia would be of great help in solving such problems. Such studies must keep step with the present and provide for the future. This is a large task, but it is one in which cooperative and unselfish work may be expected.

Health studies necessarily must overlap, but we feel that it would be well-nigh impossible to devote too much time to the consideration of such an important subject. To provide for the health of the people is one of the most important functions of government. The health of the people is of equal importance to the education of the people. It is the foundation of the welfare of the Commonwealth. The time has arrived when we should say that no person in Virginia shall lack adequate hospital or medical care because of his status in life.

Respectfully submitted,

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TABLE I

DEATH RATES IN THE STATE OF VIRGINIA AND THE UNITED STATES FOR THE TEN-YEAR PERIOD (1935-1944) FOR THE FOLLOWING CAUSES

CAUSE OF DEATH	1944		1943		1942		1941		1940		1939		1938		1937		1936		1935	
	Va.	U. S.	Va.	U. S.	Va.	U. S.	Va.	U. S.	Va.	U. S.	Va.	U. S.	Va.	U. S.	Va.	U. S.	Va.	U. S.	Va.	U. S.
Syphilis	12.1	.....	13.1	12.1	14.8	12.2	14.7	13.3	17.3	14.4	16.2	15.0	18.0	15.9	20.1	16.1	18.6	16.2	16.4	15.4
Diarrhea and Enteritis	12.8	.....	11.3	9.6	13.6	8.8	20.0	10.5	11.8	10.3	15.1	11.6	20.9	14.3	18.1	14.7	20.9	16.4	17.8	14.1
Acute Rheumatic Fever and Chronic Rheumatic Heart Disease	19.4	.....	17.9	21.4	20.6	20.0	19.2	21.0	21.5	22.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Premature Birth (per 100,000 population)	34.9	.....	34.5	25.8	35.6	25.8	36.3	25.1	36.3	24.5	37.9	24.6	37.5	25.2	38.9	26.1	40.6	26.3	39.9	26.0
Infant Mortality	48.3	.....	48.4	40.4	53.8	40.4	66.8	45.3	59.2	47.0	60.8	48.0	66.1	51.0	69.8	54.4	73.9	57.1	69.4	55.7
Maternal Mortality	2.8	.....	2.9	2.5	3.3	2.6	3.9	3.2	4.5	3.8	5.1	4.0	5.3	4.4	5.6	4.9	5.8	5.7	5.6	5.8
Tuberculosis (all forms)	46.0	.....	48.7	42.6	56.7	43.1	59.3	44.5	58.1	45.8	60.9	47.1	68.7	49.1	67.4	53.8	74.3	55.9	76.2	55.1
Cancer	90.5	.....	82.4	124.5	84.2	122.1	82.9	120.2	82.2	120.0	81.1	117.5	83.8	114.9	78.8	112.4	80.4	111.4	81.3	108.2

STATE OF VIRGINIA

Premature Birth (per 1,000 live births)	14.9	14.5	15.4	17.1	17.7	19.1	18.5	19.6	20.5	19.9

U. S. publications give premature birth per 100,000 population instead of per 1,000 live births for U. S. preceding 1941.

NOTE: The combination of "Acute Rheumatic Fever and Chronic Rheumatic Heart Disease" is not available in U. S. Tabulations prior to 1939.

Among the 10 leading causes of death in Virginia, "Acute Rheumatic Fever and Chronic Rheumatic Heart Disease" are included in all "Diseases of the Heart", Rank 1. If they were shown separately they would come in the 9th position for years 1944, 1943, 1941, 1940, and in the 10th position in 1942.

Data for U. S. for the year 1944 not yet available.

Maternal and infant mortality rates per 1,000 live births.

All other causes of death are listed as deaths per 100,000 population.

TABLE II

FIVE-YEAR MONTHLY MEDIAN OF CASES—1940–1944

DISEASE	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
Meningitis	16	14	21	21	23	13	11	13	9	12	6	26
Diphtheria	56	37	39	27	21	14	18	35	44	89	117	67
Poliomyelitis	3	1	1	2	2	2	8	27	34	33	30	8
Rocky Mountain Spotted Fever	0	1	0	0	2	8	11	14	7	3	1	0
Scarlet Fever	206	155	200	167	148	64	42	50	90	178	298	212
Tularemia	12	3	4	1	2	3	1	3	2	3	2	9
Typhoid Fever	10	6	8	9	11	12	25	32	33	31	16	12
Typhus Fever	1	1	0	0	1	0	1	1	3	2	6	1
Undulant Fever	2	2	0	2	3	4	3	3	2	3	3	1
*Total	306	220	273	229	213	120	120	178	224	354	479	336

*Possible hospital case load by months of common communicable diseases.

TABLE III

DECREASE IN DEATHS FROM CERTAIN CAUSES OVER A 25-YEAR PERIOD

	1920		*1944*	
	Deaths	*Rates*	*Deaths*	*Rates*
Typhoid	260	11.2	11	0.4
Diphtheria	334	14.4	23	0.8
Tuberculosis (all forms)	3319	143.4	1287	46.0
Diarrhea and Dysentery (under 2)	1036	44.8	336	12.0
Diarrhea and Dysentery (over 2)	455	19.7	95	3.4
Infants under one year	5500	81.4	3172	48.4*
Maternal	569	8.4	182	2.8*

*Per 1,000 live births.

TABLE IV

TABLE SHOWING THE COMPONENT PARTS OF THE FOUR ADMINISTRATIVE DISTRICTS

Southwest:		
8	one-county districts	8 counties
7	two-county districts	14 counties
15		22
Southeast:		
2	one-county districts	2 counties
4	two-county districts	8 counties
2	three-county districts	6 counties
1	four-county district	4 counties
9		20
Northern:		
7	one-county districts	7 counties
5	two-county districts	10 counties
3	three-county districts	9 counties
1	four-county district	4 counties
16		30
Central:		
4	one-county districts	4 counties
5	three-county districts	15 counties
1	four-county district	4 counties
1	five-county district	5 counties
11		28

Recapitulation

Southwest Administrative District:	15 health districts comprising	22 counties.
Southeast Administrative District:	9 health districts comprising	20 counties.
Northern Administrative District:	16 health districts comprising	30 counties.
Central Administrative District:	11 health districts comprising	28 counties.
	51	100

MAP I
Showing
Health and Administrative Districts

Administrative Districts
Health Districts